



The links between ecosystem and human health are many and obvious . . . It is clear that healthy ecosystems provide the underpinnings for the long-term health of economies and societies.

F. Henry Habicht, *EPA Journal*,
September-October 1990

Forum

Cancer Boom

White male baby boomers in the United States are three times as likely to get cancers unrelated to smoking as their grandfathers were, and female baby boomers are 30% more likely to develop cancers unrelated to smoking than were their grandmothers, a study says. Many researchers speculate that the cause for the increase is the existence of unspecified cancer-causing chemicals in the environment.

The findings "strongly suggest there are preventable causes [of cancer] out there that remain to be identified," said Devra Lee Davis, a senior adviser to the assistant health secretary of the U.S. Department of Health and Human Services, which led the study.

The research also revealed that heart disease deaths in a 15-year period beginning in 1973 dropped 42% in people under the age of 55 and 33% among 55- to 84 year olds. But the incidence of cancer is up among all age groups, and it is not due to smoking alone. "Many people in the cancer world have believed it was only smoking we had to pay attention to," Davis said.

Smoking-related cancer has also drasti-

cally increased. Compared with their grandmothers, women have 500% more cancers related to smoking and men have about 15% higher rates of smoking-related cancer than their grandfathers.

Similar findings were reported by researchers in Sweden this past spring. They found that Swedish females born from 1948-1957 have 1.3 times more cancer not related to smoking, and the risk of all cancer has doubled. Swedish men of the same ages have 1.7 times more cancer unrelated to smoking, and the risk of all cancer has tripled.

Researchers say the declines in heart disease and lung cancer, especially in men, are largely due to reductions in smoking and partly due to better medical management of heart disease. Thus, the causes of the increase in cancer cannot stem solely from causes shared with heart disease, such as smoking, but must reflect other environmental factors. However, many scientists who disagree with this conclusion believe that the predominant causes of these increases in cancer are factors such as diet, increased longevity, and lifestyle.

Cancer rates among farmers offer some suggestions as to why unspecified environ-

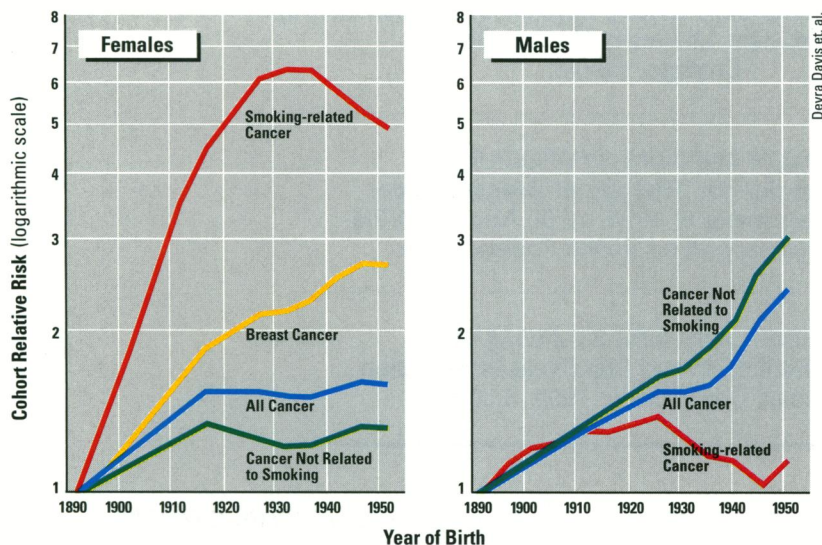
mental factors may be contributing to these increases, the report says. Farmers smoke less than most people and suffer less heart disease and lung cancer. But farmers die more often of prostate cancer, brain cancer, bone cancer, skin cancer, and non-Hodgkin's lymphoma. This may be due to their chronic exposure to engine exhausts, solvents, animal viruses, sunlight, pesticides, and fuels. "Perhaps widespread workplace and environmental exposures to these same materials account for part of the recently observed population trends," Davis said in the report. In response to these speculations, the National Cancer Institute is beginning a study of disease and environmental exposures in 100,000 American farm families.

This study was the first national analysis of a 10% sample of the U.S. population developed by the National Cancer Institute, the results of which were published in the *Journal of the American Medical Association* in February. The study only involved whites because statistics and information on other races were thought to be unreliable.

Changing of the Guardians

The spring of 1994 has seen a changing of the guardians of worker health, with new leaders heading the two government agencies dedicated to protecting America's laborers. Linda Rosenstock, head of the University of Washington's occupational and environmental medicine program and an advisor to the World Health Organization, takes command of the National Institute for Occupational Safety and Health, while Joseph A. Dear, former director of the Washington state Department of Labor and Industries, has been named assistant secretary of labor of the Occupational Safety and Health Administration.

Rosenstock moved with NIOSH from its headquarters at the Centers for Disease Control in Atlanta, Georgia, to the CDC's Washington offices. Under its mandate, NIOSH researches occupational disease and injury and develops strategies for promoting worker health. Rosenstock has



Plotting cancer progressions. A graph of relative risks shows the incidence of nonsmoking-related cancers in baby boomers is rising.

charged that Congress has failed to provide NIOSH with the resources to protect worker health, and she has pledged to work to ensure that this failure is addressed through health care reform. "There has been an isolation of detecting and treating occupational health conditions from dealing with other medical conditions," said Rosenstock. "We have an opportunity now to change that." Rosenstock said that moving NIOSH to the nation's capitol will enable the agency to better fulfill its legislative mandate and provide collaboration opportunities with OSHA as there is "a need for us to work much more effectively together."

As far as her plans in the area of environmental health are concerned, Rosenstock said she believes that occupational and environmental health are overlapping disciplines where "often we are talking about different doses of the same potential hazard, whether exposure occurs in the workplace or from the environment." Rosenstock has stated that some of the major goals of her directorship will be to increase funding for NIOSH so that it may fulfill its broad mandate; evaluate and revitalize the agency's extramural training program; focus on developing prevention and intervention strategies; and create partnerships with industry and labor to address a changing technology and changing workforce that includes more women and minorities.

Rosenstock comes to NIOSH with a background in researching occupational diseases, particularly asbestos-related disease and effects of exposure to pesticides. She has taught in developing countries and has written two textbooks on occupational medicine. Rosenstock is credited with founding one of the first occupational medicine clinics in the United States at the University of Washington.

Rosenstock received her M.D. from Johns Hopkins University School of Medicine and her master's degree in public health from its School of Hygiene and Public Health. U.S. Health and Human Services Secretary Donna E. Shalala said in announcing the appointment, "She is a world-class scientist in occupational health, a teacher and mentor in occupational medicine, and a physician with 13 years of experience devoted to treating workers with occupational conditions."

NIOSH's public mandates are enforced by the Occupational Safety and Health Administration, now headed by Dear, whose nomination as assistant secretary of



Linda Rosenstock—Occupational and environmental health are overlapping disciplines.

labor was confirmed in November 1993. At the announcement of his confirmation, Dear promised a "revitalized OSHA" with a renewed commitment to the "fundamental mission of saving lives, preventing serious injuries, and protecting the health of American workers." Dear described these goals and the hallmarks of a new OSHA whose "most important contribution to the lives of working Americans will be that they return to their homes and their families safe and secure each and every day."

Dear outlined a three-point program for revitalizing OSHA. First, he plans to more effectively target OSHA's enforcement efforts in areas where the greatest numbers of workers are most at risk, including increased use of the agency's "egregious violations" policy that allows OSHA to levy fines and pursue criminal penalties against companies that repeatedly fail to comply with health and safety standards.

Second, Dear plans to initiate a streamlined standards-setting process to reduce the time OSHA takes to promulgate regulations, based on a system of priorities including number of workers at risk, level of exposure, and the nature of the hazard. Third, Dear intends to promote greater cooperation between workers and management in development and implementation of safety and health programs.

Before assuming his position at OSHA, Dear was recognized for converting a \$225-million deficit in Washington's workers' compensation fund into a \$350-million surplus. He also instituted a health care cost containment and quality assurance program. Praising the appointment, Secretary of Labor Robert B. Reich said, "[Dear] will bring strong, creative leadership to an agency fundamental in developing safe, healthy, high-performance workplaces."

A former president of the National Association of Government Labor Officials, Dear worked as research director of the Washington State Labor Council before joining the state government. He received a B.A. in political economy from the Evergreen State College in Olympia, Washington, and graduated in 1986 from Harvard University's program for senior executives in state and local government

in the John F. Kennedy School of Government.

Biodiversity Protection Treaty

A United Nations treaty with the mission of conserving forms of wildlife worldwide passed into international law at the beginning of the year. The agreement, called the Convention on Biological Diversity, is both a global conservation pact and a guide to help rich and poor nations share in the profits of biotechnology. Biotechnology is a young industry that uses organisms with unique genetic characteristics to create products such as cancer-fighting drugs and improve crops and livestock.

The United States is 1 of 167 nations that have signed the treaty, but a two-thirds vote of the Senate is still needed for ratification. As of April, the agreement is still in the hearing stage, being reviewed by the Senate Foreign Relations Committee.

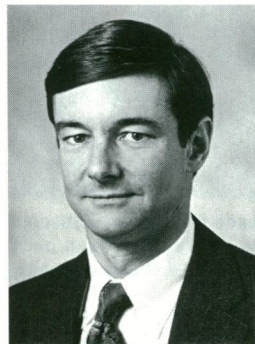
The treaty was developed approximately 10 years ago in response to research that revealed that the rate of extinction had risen to 25,000 times the natural rate. It was first presented for signatures at the Earth Summit in Brazil in 1992.

If the Senate passes the treaty, the United States will join the other participating countries in creating strategies to conserve plants, animals, microorganisms, and the habitats that sustain them. The treaty also requires that countries adopt laws to protect endangered species, expand protected areas and restore damaged ones, and promote public awareness of the need for conservation and sustainable use of biological resources.

President Bush rejected the treaty when it was presented because he felt that its biotechnology provisions would weaken patent rights for American companies. But President Clinton reversed that decision last year, saying that although he also held reservations, he was confident that the problem areas could be negotiated later.

The treaty is based on three broad political principles. The first is the idea that countries have "the sovereign right to exploit their own resources pursuant to their own environmental policies." Also, affluent countries have an obligation to help their poorer neighbors abide by the pact by offering "new and additional" financial aid and technology. And finally, species-rich but financially poor nations should share in the profits from products developed from their biological resources.

Exactly how the agreement will function has yet to be



Joseph A. Dear—A revitalized OSHA will be committed to protecting the lives of working Americans.